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GLENN PATENT GROUP
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EXAMINER

HAN, QI

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2626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

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DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

2. This communication is responsive to the applicant's amendment filed on 11/27/2006. The applicant(s) amended claims 1, 25, 29 and 56, and cancelled claims 2, 6, 28, 30, 32, 34, 57, 59 and 61 (see the amendment: pages 2-19).

Response to Arguments

3. Applicant's arguments filed on 11/27/2006 with respect to the rejection of independent claims 1, 29 and 56 (the amendment, page 2), have been fully considered but are moot in view of the new ground(s) of rejection, since the newly amended claims introduce new issue and/or subject matter, which change the scope of the claims (see claim rejection below).

The examiner withdraws the previous claim rejection under 35 USC 112 2nd, because the applicant amended the claims.

Claim Objections

4. Claims 3, 33, 35-56, 58, 60, 62-81 are objected to because of the following informalities:
Regarding claims 3, 33 and 60, the claims depend on the cancelled claims respectively.
Appropriate correction is required.

Regarding claim 56, the limitation “a computer usable medium containing instructions in computer readable form” lacks specific disclosure in the specification. Appropriate amendment or correction for the specification is required.

Regarding claims 35-56, 58, 62-81, the status of the claims is not correct. Appropriate correction is required. The applicant is suggested to check the status for all claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 3-5, 7-25, 27, 29, 31, 33, 35-56, 58, 60, 62-81 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 1, 29 and 56, the newly amended limitation “ideographic **sequence** database...” introduces the new subject matter, because the limitation is not specifically described in the original specification (see the closest disclosure in the specification: page 8, line 27 to page 9, line 3).

Regarding claims 3-5, 7-25, 27, 31, 33, 35-55, 58, 60, 62-81, the rejection is based on the same reason described for claims 1, 29 and 56 (see above), because the dependent claims include the same or similar problematic limitations as their parent claims 1, 29 and 56 respectively.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 4-5, 7-15, 21-25, 29, 33, 35-43, 51-53, 56, 60, 62-70 and 76-80 are rejected under 35 U.S.C. 102(e) as being anticipated by WILLIAMS (2003/0144830 A1).

As per **claim 29**, as best understood in view of the claim rejection under 35 USC 112 1st (see above), WILLIAMS discloses ‘language module and method for user with text processing devices’ (title), comprising:

“a reduced keyboard input device having a plurality of input means, each of said input means being associated with at least one of a plurality of strokes and a plurality of phonetic characters, an input sequence being generated each time an input means is selected by said user, wherein the generated input sequence has an interpretation that is ambiguous due to the plurality of strokes or phonetic characters associated with each input means” (paragraph (hereinafter references as p) 34, ‘pressing keys (a plurality of input means) of a mobile telephone’; 46, ‘keypad (reduced keyboard)’; p59, ‘subsequent strokes can be entered’; p62, ‘enter the subsequent letter of the intended Chinese character’s phonetic spelling’ and ‘language model 104 receives this data (Pinyin)...either unambiguously or categorically as a group of two or more

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Latin letters and returns a number of candidate characters (implying interpretation is ambiguous)');;

“an input method specific database containing at least one of a set of stroke sequences corresponding to input sequences and a set of phonetic sequences corresponding to input sequences”, (p58-p63, ‘language module 104 implements three user input modes (method)’, ‘subsequent strokes can be entered to further limit the list of candidate characters...’, ‘receive data ... in a series of input’, ‘generates a list of addresses of characters’; p54-p55, ‘contents of word buffer 210 is used by input interpretation logic and database 214 to better select language unit candidates according to the context of recently entered language units (can be a series of strokes or Pinyin letters)’; ‘support two different context modes’: ‘uses dictionary’ and ‘uses a list of proper nouns’, wherein the database necessarily and/or inherently contains stroke sequences and/or phonetic sequences);

“an ideographic sequence database associated with both stroke sequences and phonetic sequences, said ideographic sequence database containing a set of sequences, each sequence representing a phrase comprising two or more ideographic” (p58, implements both GB-2312 and Big5 standard character sets (corresponding ideographic sequence database) of the Chinese written language’; p35, ‘Font 216 store data (can also be interpreted as ideographic sequence database)’);

“means for comparing an input sequence using said input method specific database and finding one or more stroke or phonetic sequences corresponding to the input sequence” (p59, ‘the user enters the first written stroke by pressing a key corresponding to (comparing) the class to which the stroke belongs ... enters the next stroke...subsequent strokes can be entered for

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further limit the list of candidate character'; p62, 'use either selects a character or enters the subsequent letter of the intended Chinese character's phonetic spelling');

"means for converting said found stroke or phonetic sequences to one or more corresponding sequences representing phrases comprising two or more ideographic characters using said ideographic sequence database" (p54-p55, 'contents of word buffer 210 is used by input interpretation logic and database 214 to better select language unit candidates according to the context of recently entered language units', 'uses single-character word but frequently also use multi-character words (corresponding to phrases)', 'uses a dictionary of ordinary words to select candidates of intended languages units'(converting); p61-p62, 'delivers candidates which are closely linked to the previous character(s) to form words or names (phrases), 'process can be repeated for subsequent Chinese characters (phrases)'); and

"an output device for displaying one or more found stroke or phonetic sequences, and one or more phrases corresponding to said found stroke or phonetic sequences" (p62, 'these candidates are displayed to the user', 'the display contains the stroke input history, the candidate characters and the candidate component symbols').

As per **claim 33** (depending on claim 29), WILLIAMS further discloses "said phonetic input system is a Pinyin system or a Zhuyin system" (p62-p63, 'Pinyin' and 'BoPoMoFo').

As per **claim 35** (depending on claim 29), WILLIAMS further discloses "prioritizing stroke or phonetic sequences that match an input sequence and prioritizing ideographic character sequences that match a matching stroke or phonetic sequence according to a linguistic model" (p59, 'the user enters the first written stroke by pressing a key corresponding to the class to the stroke belongs and is shown the occurrence frequency of characters beginning with that stroke

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(interpreted as prioritizing) in everyday language usage' (broadly interpreted as linguistic model)).

As per **claim 36** (depending on claim 35), WILLIAMS further discloses "said linguistic model comprises at least one of: ... ; frequency of occurrence of ideographic character sequences, stroke sequences or phonetic sequences in formal or conversational written text; frequency of occurrence of ideographic character sequences, stroke sequences or phonetic sequences when following a preceding character or characters; ..." (p59, 'the occurrence frequency').

As per **claim 37** (depending on claim 29), WILLIAMS discloses "said phonetic sequences comprise single syllables" (p62, wherein entering 'Han Yu Pinyin' letters for 'word or name list' necessarily and/or inherently includes single syllables).

As per **claim 38** (depending on claim 29), WILLIAMS discloses "said phonetic sequences comprise both single and multiple syllables" (p62, wherein entering 'Han Yu Pinyin' letters for 'word or name list' necessarily and/or inherently includes both single syllables and multiple syllables).

As per **claim 39** (depending on claim 29), WILLIAMS further discloses "said phonetic sequences comprise user generated sequences" (p62, 'the user enters (generates) the first letter ...' then 'the user ... enters the subsequent letter (sequence) of the intended Chinese character's phonetic spelling').

As per **claim 40** (depending on claim 39), WILLIAMS further discloses "in absence of matching phonetic sequences in said database, a sequence of matching phonetic sequences is automatically generated based on single and optionally multiple syllable phonetic sequences"

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(p61-p62, 'when there are no more valid linkage (absence of matching) according to contextual relations between characters (such as multi-character words including the previous entered characters)...delivers (automatically generate) unlinked candidate characters' and 'the invocation of word association, whether by word or name list, is processed as previously described').

As per **claim 41** (depending on claim 40), WILLIAMS further discloses "said sequence of matching phonetic sequences is narrowed down through user interaction" (p59 and p62, 'subsequence strokes (or Pinyin letters) can be entered to further limit the list of characters (narrowed down through user interaction)').

As per **claim 42** (depending on claim 40), WILLIAMS further discloses "a sequence of matching ideographic character sequences is automatically generated based on matching phonetic sequences to ideographic character sequences" (p62, 'these candidates (matched ideographic character sequences) are displayed 'automatically generated)').

As per **claim 43** (depending on claim 42), the rejection is based on the same reason described for claim 41, because the claim recites the same or similar limitations as claim 41.

As per **claim 51** (depending on claim 29), the rejection is based on the same reason described for claim 43, because the claim recites the same or similar limitation(s) as claim 43.

As per **claim 52** (depending on claim 51), the rejection is based on the same reason described for claim 35, because the rejection for claim 35 covers the same or similar limitation(s) as claim 52.

As per **claim 53** (depending on claim 52), the rejection is based on the same reason described for claim 36, because the claim recites the same or similar limitation(s) as claim 36.

As per **claims 1**, it recites a method. The rejection is based on the same reason described for claim 29, because the claim recites the same or similar limitation(s) as claim 29.

As per **claim 4** (depending to claim 1), the rejection is based on the same reason described for claim 1, because the rejection for claim 1 covers the same or similar limitation(s) as claim 4.

As per **claims 5, 7-15, 21-23** (depending on claim 1), the rejection is based on the same reason described for claims 33, 35-43, and 51-53 respectively, because the claims recite the same or similar limitation(s) as claims 33, 35-43 and 51-53 respectively.

As per **claim 24** (depending on claim 1), the rejection is based on the same reason described for claim 48, because the rejection for claim 48 covers the same or similar limitation(s) of this claim.

As per **claim 25** (depending on claim 24), the rejection is based on the same reason described for claim 48, because the rejection for claim 48 covers the same or similar limitation(s) of this claim.

As per **claim 56**, it recites a computer usable medium. The rejection is based on the same reason described for claim 29, because the claim recites the same or similar limitation(s) as claim 1.

As per **claims 60, 62-70 and 76-78** (depending on claim 56), the rejection is based on the same reason described for claims 33, 35-43 and 51-53 respectively, because the claims recite the same or similar limitation(s) as claims 33, 35-43 and 51-53 respectively.

As per **claim 79** (depending on claim 56), the rejection is based on the same reason described for claim 48, because the rejection for claim 48 covers the same or similar limitation(s) of this claim.

As per **claim 80** (depending on claim 79), the rejection is based on the same reason described for claim 48, because the rejection for claim 48 covers the same or similar limitation(s) of this claim.

Claim Rejections - 35 USC § 103

7. Claims 3, 16, 18-20, 31, 44-45, 48-50, 58, 71 and 73-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over WILLIAMS in view of NI et al. (6,822,585 B1) hereinafter referenced as NI.

As per **claim 31** (depending on claim 29), WILLIAMS does not expressly disclose “said stroke input system is 5-stroke or 8-stroke system”. However, the feature is well known in the art as evidenced by NI who discloses ‘input of symbols’ (title), comprising ‘any graphic glyph which can be inputted directly from a keyboard or a keypad’ and ‘the symbols include a alphabets, digits...character strokes and tone marks’ (col. 4, lines 21-26); ‘inputting characters into a terminal... having a plurality of keys’, ‘a number of the keys have associated with them a alphabet of different symbols (alternatively associated) which can be accessed and indicated in a display by means of single or multiple key selections or key presses of the keys’ (col. 4, lines 15-32), using ‘Chinese input dictionary which contains a mapping table of Pinyin string (phonetic characters) and matching Chinese characters (corresponding to ideographic database)’ (col. 6, lines 3-9), and that ‘the invention significantly simplifies the input of Pinyin (phonetic input) ...

with carefully designed key mapping, this method can also improve other Chinese input methods ...such as Bopomofo or **Wubizixin** (five stroke input)' (col. 11, lines 18-23), which suggests that Chinese dictionary (ideographic database) is necessarily associated with both Pinyin and stroke inputs and capable of allowing user select one of input methods. NI also teaches that 'most of the existing Chinese input methods were original designed for PC keyboards' and discloses the previous endeavor for a character input method that requires more basic input symbols than the number of keys on a keypad (col. 1, line 52 to col. 2, lines 40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify WILLIAMS by providing input means with a plurality of keys that are associated with different symbols and using ideogram dictionary (database), such as Chinese input dictionary associated with input in both Pinyin method and Wubizixin (five stroke input) method, as taught by NI, for the purpose (motivation) of improving character input method (NI: col. 11, lines 21-23) for the system.

As per **claim 44** (depending on claim 35), WILLIAMS does not expressly discloses "changing the associated priority of the matching phonetic sequence and the sequence of ideographic characters once an ideographic character sequence is selected". However, the feature is well known in the art as evidenced by NI who further discloses 'during input of text, a user is presented with a list of the Latin symbols in an order determined (changed) by the probability (associated priority) of being the next symbol rather than being in default, for example alphabetical order', which suggests selection from the list may also changes the associated priority (order)' (NI: col. 3, lines 66 to col. 4, line 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify

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WILLIAMS by providing a list of the symbols to determine the probability (associated priority) of being the next symbol rather than being in default, for example alphabetical order, as taught by NI, for the purpose (motivation) of improving character input method and/or providing the most probable symbols (NI: col. 11, lines 21-23 and col. 3, lines 64) for the system.

As per **claim 45** (depending on claim 29), the rejection is based on the same reason described for claim 31, because the rejection for claim 31 covers the same or similar limitation(s) as claim 45, wherein a tone mark can be applied to Pinyin input.

As per **claim 48** (depending on claim 29), as stated above, WILLIAMS discloses that “the user is returned a sequence of phonetic sequences of exact matches” (p62, ‘the display contains the stroke input history, the candidate characters and the candidate component symbols’), but does not expressly disclose returning “predictions that partially match”. However, the feature is well known in the art as evidenced by NI who further discloses ‘predicts the next Chinese character according to the context and a Chinese word database’ and shows partially match (26; col. 3, lines 49 and Fig. 5, blacks 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify WILLIAMS by providing predicting the next Chinese character and returning partial partially match, as taught by NI, for the purpose (motivation) of improving character input method (NI: col. 11, lines 21-23) for the system.

As per **claim 49** (depending on claim 48), the rejection is based on the same reason described for claim 35, because the rejection for claim 35 covers the same or similar limitations as claim 49.

As per **claim 50** (depending on claim 49), the rejection is based on the same reason described for claim 36, because the claim recites the same or similar limitation(s) as claim 36.

As per **claim 3** (depending on claim 1), the rejection is based on the same reason described for claim 31, because the claim recites the same or similar limitations as claim 31.

As per **claim 16** (depending on claim 7), the rejection is based on the same reason described for claim 44, because the claim recites the same or similar limitations as claim 44.

As per **claims 18-20** (depending on claim 1), the rejection is based on the same reason described for claims 48-20 respectively, because the claims recite the same or similar limitation(s) as claims 48-20 respectively.

As per **claim 58** (depending on claim 56), the rejection is based on the same reason described for claim 31, because the claim recites the same or similar limitations as claim 31.

As per **claim 71** (depending on claim 62), the rejection is based on the same reason described for claim 44, because the claim recites the same or similar limitations as claim 44.

As per **claims 73-75** (depending on claim 56), the rejection is based on the same reason described for claims 48-50 respectively, because the claims recite the same or similar limitation(s) as claims 48-50 respectively.

8. Claims 27, 46, 54-55 and are rejected under 35 U.S.C. 103(a) as being unpatentable over WILLIAMS in view of ZHANG et al. (5,197,810) hereinafter referenced as ZHANG.

As per **claim 46** (depending on claim 29), WILLIAMS does not expressly disclose “one of said plurality of inputs is associated with a **special wildcard** input that is associated with any or all tones”. However, the feature of using a wildcard for inputting and displaying

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symbols/texts is well known in the art as evidenced by ZHANG who discloses method and system for inputting simplified form and/or original complex form of Chinese character (title), comprising 'Fuzzy auxiliary inputting method' in which some special keys 'can be used in substitution as a wild card' or 'can be used as the fuzzy key (wildcard key)' (col. 13, line 59 to col. 13, line 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify WILLIAMS by providing an input method with wild card used for substitution of input symbols or text, taught by ZHANG, for the purpose (motivation) of using the wild card in substitution of an input (ZHANG: col. 13, lines 62-63), such as input of Pinyin characters and/or strokes representing Chinese character components.

As per **claim 54** (depending on claim 29), the rejection is based on the same reason described for claim 46, because the claim recites the same or similar limitation(s) as claim 46.

As per **claim 55** (depending on claim 29), the rejection is based on the same reason described for claim 46, because the claim recites the same or similar limitation(s) as claim 46.

As per **claim 27** (depending on claim 1), the rejection is based on the same reason described for claim 55, because the claim recites the same or similar limitations as claim 55.

As per **claim 81** (depending on claim 56), the rejection is based on the same reason described for claim 55, because the claim recites the same or similar limitations as claim 55.

9. Claims 17, 47 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over WILLIAMS in view of KRAFT et al. (US 2003/0017858 A1) hereinafter referenced as KRAFT.

As per **claim 47** (depending on claim 29), WILLIAMS does not expressly disclose "the user can specify an explicit ideographic character separator". However, the feature is well

known in the art as evidenced by KRAFT who discloses 'data entry by string of possible candidate information' (title), comprising 'hard separator' and 'soft separator' for separating input text (sentences or words) (p72). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify WILLIAMS by providing an separator for inputting text, for the purpose (motivation) of improving method of entering data into a communication terminal (KRAFT: p6).

As per **claim 17** (depending on claim 1), the rejection is based on the same reason described for claim 47, because the claim recites the same or similar limitations as claim 47.

As per **claim 72** (depending on claim 56), the rejection is based on the same reason described for claim 47, because the claim recites the same or similar limitations as claim 47.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qi Han whose telephone numbers is (571) 272-7604. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richmond Dorvil, can be reached on (571) 272-7602.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: ebc@uspto.gov. For general information about the PAIR system, see <http://pair-direct.uspto.gov>.

QH/qh
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